257 The central agrarian section of Ukraine, on both banks of
311 the Dnipro, includes industries producing foodstuffs and luxuries, above all the sugar industry. There are also plants here for manufacturing leather and medium-heavy machinery. Factories are much smaller than in the coal and ore area and the many small power-stations run on brown coal and peat.

381 The Carpathian area is the home above all of the chemical
311 industry and the capacity of the power-stations, usually run by gas and expensive imported coal, seldom by the abundant water power available, exceeds 10 000 KW only in Lviv — Uzhhorod, being used principally for lighting the towns. Industrialisation is densest on the oil-fields of Drohobych.

●371 In the foreland of the Caucasus electric plants are run by
311 petroleum only and water power is not exploited at all. The small factories (petroleum, tobacco, leather and machinery of medium weight) are too scattered to form an industrial area in the strict sense.

392 The large towns form industrial centers that are not dependent
311 on the presence of raw materials. Kharkiv has heavy engineering plants for transportation requirements, factories for agricultural machinery, electro-technical factories, and workshops for precision instruments and machinery. These are large enterprises, built recently and attached to big power-stations (Chuhujiv 25 000 KW), so that Kharkiv may be classed with the industrial area in the vicinity.

39 Kyiv builds ships and produces chemical and electro-technical
311 equipment and has chemical and textile plants as well as sugar and foodstuffs factories. In Odessa the same factories are represented and there are also canneries, leather works and plants for producing cinema installations. In addition, there are workshops that specialise in the structure of motor-cars and planes. In the other towns in the country enterprises for this or that industry have been established.

methods and branches of industry have been introduced, as for instance the production of superior steel and iron alloys. 327

The development of the power-station on the Dnipro entailed a certain change in the location of heavy industry. And the ratio of coal to iron per manufactured unit which was 2.8 : 1 before World War I became 1.6 : 1, though it is still more practicable to transport high quality ores to coal than vice-versa. The Dnipro power-station, however, which is more favorably situated as regards markets and consumption is attracting new foundations of enterprises in heavy industry. This is particularly true of Zaporizha. 371 ● 327

5. Production of Machinery and Metal Goods

Even before World War I, markets were favorable for the production of machinery, above all for agricultural purposes which accounted for the work done for private customers in 126 plants. But modern, large factories were not built till after the war. New branches of production were started, e. g. for motor-cars and tractors (see huge factory in Kharkiv), machinery for mines and precision instruments while the construction of engines and railway trucks increased. The largest factories are in the Donets Combine and in the three large towns; the manufacture of agricultural machines is also distributed over other areas. 392

The non-ferrous metal industry is poorly represented. Between 1914 and 1928 there was practically no increase in the production of mercury (41 000 to 42 000 t). In the Kuban area in 1913 3 000 t zinc and 1 350 t lead were produced; in 1932 these figures were 5 000 and 3 500 t lead respectively. Under the first Five Year Plan zinc factories were erected in connection with the chemical works in Konstantynivka and aluminium works in Kichkas near the power plant on the Dnipro Bend. The annual production of the latter is estimated at 40 000 t. Fuel or power requirements play a greater part than the transportation of raw materials. The production of metal goods is confined to small factories. 328

9: Prothero G-4 (no date) 1920 RD1 Ukraine RD1

438 [655] In addition to factory industries there exists in Russia a group known as *kustarni* or domestic industries. They are considered so important by the Government that measures are taken by the various authorities to improve their output and conditions, to revive old ones and even to found new ones. Their range is wide, and they are carried on by families, by working syndicates or *artels* (cf. p. 73), or by individuals. In the Ukraine these industries are less well developed than in most parts of Russia, and in some provinces are hardly represented. There are three branches well established. Pottery is manufactured in the Governments of Kiev, Chernigov, and Poltava, where suitable clays are found, and the *kustarni* earthenware of these districts has a good reputation all over the country. Shoes, harness, and other leather goods are produced in the Governments of Poltava and Chernigov. Combs, buttons, and other objects made from animal horn are also a noted product of Poltava.

(6) Power

• 371 In the Ukraine power is almost exclusively produced by steam. Electric power is used for the tramways in Odessa and Kiev, but water-power is neglected, and electric drive for factory work is not employed.

(C) COMMERCE

(1) Domestic

(a) *General Characteristics; Markets, Fairs, &c.*

438 441 The trade of the Ukraine consists almost entirely in the movement and marketing of the produce of the land in one form or another. One of its noticeable features is the passage of commodities through several hands before they come into use. Nowhere are found so many middlemen, salesmen, and agents. This is caused principally by the lack of capital in the hands of the producer and a general encumbrance and hypothecation of land, crops, machinery, &c. There is